

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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14 FEB 2005

GILL JENNINGS &amp; EVERY

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

10.02.2005

Applicant's or agent's file reference  
PCT/EP03/12373

## IMPORTANT NOTIFICATION

International application No.  
PCT/EP 03/12373

International filing date (day/month/year)  
06.11.2003

Priority date (day/month/year)  
06.11.2002

Applicant  
ROCKWOOL INTERNATIONAL A/S et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/B/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international  
preliminary examining authority:



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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT/EP03/12373	<b>FOR FURTHER ACTION</b>	
	See Form PCT/IPEA/416	
International application No. PCT/EP 03/12373	International filing date (day/month/year) 06.11.2003	Priority date (day/month/year) 06.11.2002
International Patent Classification (IPC) or national classification and IPC C03B5/00		
Applicant ROCKWOOL INTERNATIONAL A/S et al.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a.  (*sent to the applicant and to the International Bureau*) a total of sheets, as follows:
    - sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b.  (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand  07.06.2004	Date of completion of this report  10.02.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Deckwerth, M Telephone No. +49 89 2399-7069



**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

**Description, Pages**

1-16 as originally filed

**Claims, Numbers**

1-23 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
  - the entire international application,
  - claims Nos. 15, 22,23
    - because:
    - the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
    - the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 15,22,23 are so unclear that no meaningful opinion could be formed (*specify*):  
**see separate sheet**
    - the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
    - no international search report has been established for the said claims Nos.
    - the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form	<input type="checkbox"/> has not been furnished
	<input type="checkbox"/> does not comply with the standard
the computer readable form	<input type="checkbox"/> has not been furnished
	<input type="checkbox"/> does not comply with the standard
    - the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
    - See separate sheet for further details

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes:	Claims	1-14,16-21
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-14,16-21
Industrial applicability (IA)	Yes:	Claims	1-14,16-21
	No:	Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

- (a) The feature defined in claim 15 is the effect or desideratum of the process and should be placed in the description rather than in a claim.
- (b) As to claims 22 and 23, the features defined reflect the intended use of the final fibres and therefore cannot serve to define the process any closer.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following documents/:

- D1: WO-A1-0142154 (family member of cited US2003/0083187)
- D2: US-A-2 300930
- D3: JP-A-2000109338
- D4: GB-A-2 301 351
- D5: EP-A2-0 468 414

**Re Item VIII**

**Certain observations on the international application**

1. As to claim 1, D4 (especially page 1, lines 26-31 p. 3, l. 25-29; l. 34-p. 4, l. 18; p. 5, l. 27-36; p. 10, l. 30-p. 11, l. 3; p. 13, l. 13-20; claim 1) discloses a process of producing man-made vitreous fibres having a phosphorus content of at least 0.5%, measured as weight % P<sub>2</sub>O<sub>5</sub> including the features defined in l. 3-11. The technical problem to be solved is regarded as which industrial waste materials are appropriate as alternative raw materials for bringing suitable P<sub>2</sub>O<sub>5</sub> content into the fibres, without being expensive and introducing environmental harmful and health hazardous components into the melt.  
D1 (esp. p. 6, l. 11-35; p. 10, l. 1-2; example 1, 2; Table 1,3,5) discloses the use of granulated sewage sludge slag as well as sewage sludge ash obtained by the self-ignition of the sludge (p. 3, l. 21) for melting P<sub>2</sub>O<sub>5</sub>-containing glasses from which fibres have been produced.  
Also D5 (esp. p. 2, l. 57-p. 4, l. 43; example 1) discloses the use of sewage sludge

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ash for producing slag wool having a  $P_2O_5$ -content of up to 30%.

Regarding the use of bone meal ash, D2 (column 2, l. 45-51) discloses the use of "the ash from the refuse that commonly comes to a municipal incinerator is derived ... from ...animal wastes". In this context and only for illustrative purposes D3 discloses the use of bone meal ash for melting  $P_2O_5$ -containing glasses, i.e. demonstrates the known fact of bone meal ash containing phosphates.

Furthermore, D4 already discloses the above-mentioned technical problem. In view of this problem the skilled person is capable of selecting further suitable materials from the range of known industrial waste materials by means of standard chemical analysis and melt experiments. In this context, it is noted that it is a general trend to use industrial waste for other applications rather than just deposit it.

As a consequence, the subject-matter of claim 1 does not fulfill the requirements of Article 33(3) PCT.

The same argumentation applies to the subject-matter of claims 19-21.

Therefore, the subject-matter of claims 19-21 does also not fulfill the requirements of the above-cited article.

3. As to claims 2-6, the features defined are known from D1.
4. As to claim 7, the feature defined is known from D4 (esp. p. 14, table).
5. The features defined in claims 8, 9 and 11 are regarded as results of optimization processes effected by the skilled person in order to find the best conditions concerning composition (see also D1: p. 6, l. 23-30) and melting behaviour of the briquettes.
6. The feature defined in claim 10 is known from D4 (p. 14, table).
7. The glass compositions defined in claim 12 are known from D1 (Table 1,3,5) or D5 (p. 2, l. 5-p.3, l. 37; example 1; claim 1).
8. The features defined in claims 13 and 14 are known from D4 and D1 respectively.
9. The features defined in claims 16 and 17 are generally known in the art (see e.g. D2 (p. 1, l. 29; p. 2, l. 65-p.3, l. 8)).

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10. The feature defined in claim 18 are known from D4 (p. 14, table).

**Re Item VIII**

**Certain observations on the international application**

- (a) According to the description (p. 7, l. 10-12) a phosphorus content of at least 0.5% is essential. This feature is not defined in claims 19 or 20.